ABSTRACT OF THE INVENTION

Interferometric apparatus and methods for reducing the effects of coherent artifacts in interferometers. Fringe contrast in interferograms is preserved while coherent artifacts that would otherwise be present in the interferogram because of coherent superposition of unwanted radiation generated in the interferometer are suppressed. Use is made of illumination and interferogrammetric imaging architectures that generate individual interferograms of the selected characteristics of a test surface from the perspective of different off-axis locations of illumination in an interferometer and then combine them to preserve fringe contrast while at the same time arranging for artifacts to exist at different field locations so that their contribution in the combined interferogram is diluted.